



(12) **United States Patent**
Aram et al.

(10) **Patent No.:** **US 8,535,383 B2**
(45) **Date of Patent:** **Sep. 17, 2013**

(54) **SYSTEMS AND METHODS FOR
COMPARTMENTAL REPLACEMENT IN A
KNEE**

(75) Inventors: **Luke Aram**, Warsaw, IN (US); **Dan Auger**, Fort Wayne, IN (US); **Adam Hayden**, Fort Wayne, IN (US); **Jordan Lee**, Warsaw, IN (US)

(73) Assignee: **DePuy Synthes Products, LLC**,
Raynham, MA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1696 days.

(21) Appl. No.: **11/171,180**

(22) Filed: **Jun. 30, 2005**

(65) **Prior Publication Data**

US 2006/0058884 A1 Mar. 16, 2006

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/033,614, filed on Jan. 12, 2005, now Pat. No. 7,258,701.

(60) Provisional application No. 60/535,967, filed on Jan. 12, 2004.

(51) **Int. Cl.**
A61F 2/38 (2006.01)

(52) **U.S. Cl.**
USPC **623/20.15; 623/20.3**

(58) **Field of Classification Search**
USPC 623/16.11–23.47
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,798,679 A	3/1974	Ewald
3,816,855 A	6/1974	Saleh
3,852,830 A	12/1974	Marmor
3,949,428 A	4/1976	Cavendish et al.
3,953,899 A	5/1976	Charnley
4,001,896 A	1/1977	Arkangel
4,034,418 A	7/1977	Jackson et al.
4,151,615 A	5/1979	Hall
4,178,641 A	12/1979	Grundeil et al.
4,207,627 A	6/1980	Cloutier
4,209,861 A	7/1980	Walker et al.
4,216,549 A	8/1980	Hillberry et al.

(Continued)

FOREIGN PATENT DOCUMENTS

DE	29 01 009	7/1980
DE	33 05 237 A1	8/1983

(Continued)

OTHER PUBLICATIONS

Richards, KA-012255, Richards Mod II Knee, 1976 (56 pages).

(Continued)

Primary Examiner — Bruce E Snow

(74) *Attorney, Agent, or Firm* — Maginot, Moore & Beck LLP

(57) **ABSTRACT**

A kit for a prosthesis system includes a plurality of first components, each of the plurality of first components for replacing one of a plurality of first surface portions of a bone, a second component for replacing a second surface portion of the bone and a resilient connector for connecting at least one of the plurality of first components to the second component. In accordance with one method, components from a prosthesis system kit used to replace adjacent portions of a bone surface are assembled ex vivo.

9 Claims, 31 Drawing Sheets

